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IN THE
Supreme Court of the United States
OCTOBER TERM, 1976

Nos. 76-1558, 76-1559

C. MARSHALL DANN, COMMISSIONER OF PATENTS & TRADEMARKS,
Petitioner,
v.
GLEN F. CHATFIELD,
Respondent,

C. MARSHALL DANN, COMMISSIONER OF PATENTS & TRADEMARKS,
Petitioner,
v.
A. MICHAEL NOLL,
Respondent.

On Petition for Writ of Certiorari to the United States Court of Customs and Patent Appeals

MOTION FOR LEAVE TO FILE BRIEF AND BRIEF AMICUS CURIAE FOR THE COMPUTER & BUSINESS EQUIPMENT MANUFACTURERS ASSOCIATION (CBEMA)

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MOTION FOR LEAVE TO FILE BRIEF AMICUS CURIAE

The Computer & Business Equipment Manufacturers Association (CBEMA) respectfully moves for leave to file the attached Brief Amicus Curiae in the above-entitled cases. Petitioner and respondent Noll have consented to the filing of this brief. The consent of respondent Chatfield was requested but refused.

CBEMA is the trade association which along with its predecessor association, the Business Equipment Manufacturers Association, has represented the computer and business equipment industry for the past 61 years. The companies comprising the current CBEMA membership include the nation's leading manufacturers of computers and computer-related equipment. While product lines of member companies vary widely, the following list is illustrative: electronic computers, computer software including programs, computer input and output devices, computer storage devices, support services, data transmission equipment, optical character readers, addressing machines, accounting machines, bookkeeping machines and office copying machines. The extent to which such equipment can be utilized effectively depends in great measure on the applications and systems programs developed by computer programmers to control the operations of these machines. CBEMA is also the approved sponsor under the American National Standards Institute (formerly the American Standards Association) for the processing of domestic and international standards related to information processing, computers and office machines.

The members of CBEMA who manufacture computer products have consistently been forerunners in

achieving major developments, in both the concept and application, of computer programming and data processing, and have contributed greatly to the present significant status and role of the computer in modern society. These members maintain and support extensive activities devoted to applied research and systems development in all phases of computer use and data and information processing.

Not only is the subject matter of the present cases of vital concern to the CBEMA membership, and to non-CBEMA members in the computer and data processing field, it is also of vital concern to the Government and to the public generally. The final outcome of the issues squarely presented in these cases will have a significant influence upon both the immediate and the future planning of CBEMA members with respect to ways and means of protecting the proprietary fruits resulting from computer program research and development. Thus, the outcome of the present cases will inevitably affect the future growth and development of the data processing industry in the United States and will have a corresponding or greater impact on the vast segments of our society which use and receive the benefits of technological advances in this industry.

The attached Brief Amicus Curiae presents together three important aspects of these cases which were not fully treated in the Solicitor General's petition:

(1) The critical confusion caused by the holdings of the Court below that computer programs are patentable subject matter under 35 U.S.C. § 101;

(2) The critical confusion caused by the failure of the Court below to adhere to the guidelines set forth by this Court in *Gottschalk* v. *Benson*, 409 U.S. 63 (1972); and

(3) The resulting socio-economic impact of major proportions upon the public, the computer industry, and computer users, including the Government.

Accordingly, CBEMA respectfully requests that this Court grant leave to file the attached Brief Amicus Curiae.

Respectfully submitted,

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BRIEF AMICUS CURIAE FOR THE COMPUTER & BUSINESS EQUIPMENT MANUFACTURERS ASSOCIATION (CBEMA)

I.

QUESTION PRESENTED

Whether a computer program claimed as either a process or a machine comprises subject matter which may be patented under 35 U.S.C. § 101.

II.

INTEREST OF THE COMPUTER & BUSINESS EQUIPMENT MANUFACTURERS ASSOCIATION

This Brief Amicus Curiae is submitted by the Computer & Business Equipment Manufacturers Association (CBEMA) in accordance with Rule 42(1) of this Court. Petitioner and respondent Noll have consented to the filing of this brief. The consent of respondent Chatfield was requested but refused.

CBEMA is the trade association which along with its predecessor association, the Business Equipment Manufacturers Association, has represented the computer and business equipment industry for the past 61 years. The companies comprising the current CBEMA membership include the nation's leading manufacturers of computers and computer-related equipment. While product lines of member companies vary widely, the following list is illustrative: electronic computers, computer software including programs, computer input and output devices, computer storage devices, support services, data transmission equipment, optical character readers, addressing machines, accounting machines, bookkeeping machines and office copying machines. The extent to which such equipment can be utilized effectively depends in great measure on the applications and systems pro-

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The members of CBEMA who manufacture computer products have consistently been forerunners in achieving major developments, in both the concept and application, of computer programming and data processing, and have contributed greatly to the present significant status and role of the computer in modern society. These members maintain and support extensive activities devoted to applied research and systems development in all phases of computer use and data and information processing.

Not only is the subject matter of the present cases of vital concern to CBEMA members and non-CBEMA members in the computer and data processing field, it is also of vital concern to users of computer equipment, including the Government, and the public generally. Final resolution of the issues presented in these cases will have a significant influence upon both the immediate and the future planning of CBEMA members with respect to ways and means of protecting the proprietary fruits resulting from computer program research and development. Thus, the outcome of the present cases will inevitably affect the future growth and development of the data processing industry in the United States and will have a corresponding or greater impact on the vast segments of our society which use and receive the benefits of technological advances in the industry.

III.

REASONS FOR GRANTING THE WRIT

A. The Decisions Of The Court Below Have Created Critical And Substantial Confusion By Improperly Holding That Computer Programs Are Patentable Subject Matter

The decisions below in *In Re Chatfield*, 191 U.S.P.Q. 730 (C.C.P.A. 1976), and *In Re Noll*, 191 U.S.P.Q. 721 (C.C.P.A. 1976), raise the fundamental question of whether "programs for general purpose digital computers [are] patentable subject matter under 35 U.S.C. § 101?" [1] In *Chatfield* a majority of the Court of Customs and Patent Appeals held, over a vigorous dissent by Judges Rich and Lane, that an invention disclosed in the patent application as a computer program, but claimed as a method for operating a computing system, is patentable subject matter under this section. In *Noll*, the same majority, again over vigorous dissent, held that an invention disclosed in the patent application as a computer program but claimed as a machine for converting computer input data into a different output format is also patentable subject matter under 35 U.S.C. § 101.

CBEMA submits that these decisions have created substantial confusion as to whether computer programs are patentable subject matter under the patent laws by improperly deciding the fundamental question posited above. As pointed out in the dissenting opinion of Judge Rich in *Chatfield*, any computer program can be claimed as a "machine" or "process"

[1] 191 U.S.P.Q. at 736.

under 35 U.S.C. § 101 with the net effect of providing complete patent protection to the computer program *itself*:

> It has never been otherwise than perfectly clear to those desiring patent protection on inventions which are new and useful programs for general purpose computers (software) that the only way it could be obtained would be to describe and claim (35 U.S.C. 112) the invention as a "process" or a "machine." . . . [G]iven an invention which is in essence a new program for a general-purpose digital computer, a competent patent draftsman can readily define the invention as either a process or a machine, or both. This has been demonstrated time and again by the computer program cases which have come to this Court. 191 U.S.P.Q. at 737.

Similarly, as pointed out in the dissenting opinion of Judge Lane in *Noll*, basing patentability of computer programs on claim format "would permit and invite circumvention of [this Court's decision in *Gottschalk* v. *Benson*, 409 U.S. 63 (1972)] by the facile drafting device of claiming in apparatus form an idea for programming computers that would, according to my understanding of *Benson*, be unpatentable subject matter if claimed as a method." 191 U.S.P.Q. at 729.

Thus, the *Chatfield* and *Noll* decisions permit the patenting of computer programs by means of routine claim drafting techniques, without answering the ultimate question of whether such programs are patentable subject matter under the patent laws. As a result, the validity of all such patents will be open to question, absent final resolution of this issue by

this Court. Because the *Chatfield* and *Noll* cases squarely present this fundamental question, CBEMA submits that the Solicitor General's petition for writ of certiorari should be granted.

B. The Decisions of the Court Below Are Contrary to this Court's Holding in Gottschalk v. Benson.

The Solicitor General's petition for writ of certiorari should be granted, in any event, because the majority below failed to adhere to the guidelines set forth by this Court in *Gottschalk* v. *Benson*, 409 U.S. 63 (1972). In that case the Court held that a mathematical process for converting binary-coded-decimal numerals into pure binary numerals was not a patentable process within the meaning of 35 U.S.C. § 100(b). In reaching this conclusion the Court noted that the claimed mathematical process had no substantial practical application, except in connection with a digital computer, so that a patent on this process would "wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself." 409 U.S. at 72. Thus, the Court looked to the substance of the claimed invention—a mathematical algorithm—and determined that it was not patentable subject matter under the patent laws, whether or not, as pointed out in the dissenting opinion of Judge Lane in *Noll*, such claimed invention recited a method employing a specific piece of apparatus:

> "Moreover, the Court in *Benson* failed to draw any distinction between claim 13. . . . which recited a method devoid of any apparatus, and claim 8. . . . which recited a method employing a specific piece of apparatus, holding both unpatentable under section 101. Clearly, if the apparatus used in the method of *Benson* claim 8 did not take the invention defined therein out of a general proscription against patenting programs in whatever form claimed, then similarly the apparatus format of the claims here on appeal does not make these claims, which cover programming, claims to statutory subject matter." 191 U.S.P.Q. 730.

In both decisions below, the majority looked only to the *form* of the claims, failing to consider the *substance* of the claimed inventions—computer programs embodying algorithms which, as in *Gottschalk* v. *Benson*, have practical utility only when used with a digital computer.[2] This Court should not permit its holding in *Gottschalk* v. *Benson* to be obviated by routine claim drafting techniques which hide the true nature of the claimed invention.[3] Nor should this

[2] As explained by Judge Rich in his dissenting opinion in *Chatfield*, "the invention [computer programs] relates only to the operation of data-processing equipment ("computers") without reference to any other technology." 191 U.S.P.Q. at 738.

[3] The following relevant statement taken from the Report of the President's Commission on the Patent System (1966), was quoted by this Court in Benson:

> Uncertainty now exists as to whether the statute permits a valid patent to be granted on programs. Direct attempts to patent programs have been rejected on the ground of nonstatutory subject matter. Indirect attempts to obtain patents and avoid the rejection, by drafting claims as a process, or a machine or components thereof programmed in a given manner, rather than as a program itself, have confused the issue further and should not be permitted. 409 U.S. at 72.

Court permit the decisions below to perpetuate widely differing interpretations of *Gottschalk* v. *Benson* among the judiciary. Such disparity, as recognized by Judge Rich in his dissenting opinion in *Chatfield*, clearly signals a need for guidance from this Court:

> My colleagues of the majority take a narrower view of *Benson* and arrive at an opposite result in these two new cases, as another majority did in [*Dann* v. *Johnston*].[5] This, to me, signals an urgent need to settle the question of patent protection for software by higher authority than this court so that the Patent and Trademark Office, the Federal judiciary as a whole, and the data-processing industry (hardware and software both) may know what the law on software patentability is. . . . [This issue] is obviously not going to be finally decided in this court. 191 U.S.P.Q. at 738.[4]

C. Final Resolution of The Issue Presented In These Cases Is Necessary Because It Will Have A Significant Economic Impact Upon The Public, The Computer Industry, and Computer Users, Including the Government

The confusion and uncertainty created by the decisions below in light of *Gottschalk* v. *Benson* will have a socioeconomic impact of major proportions that further amplifies the necessity for clarification by this Court. The areas in which the impact will be most strongly felt are as follows:

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[4] *See also Decca Ltd.* v. *United States*, 188 U.S.P.Q. 167, 173 (Ct. Cl. 1975); *aff'd per curiam*, 191 U.S.P.Q. 439 (Ct. Cl. 1976); *Digitronics Corp.* v. *The New York Racing Ass'n, Inc.*, 187 U.S.P.Q. 603, 640 (E.D.N.Y. 1975).

[5] 502 F.2d 765 (CCPA 1974), *rev'd on other grounds*, 425 U.S. 219 (1976).

(1) *With Respect to Inventors*: Should the Solicitor General's petition for a writ of certiorari be denied, originators of computer programs will have to determine whether or not to invest significant human and tangible resources to prepare and prosecute "process" or "machine" patent applications. Situations will arise where a prior inventor refrains from filing such a patent application because of the uncertainty and confusion caused by the holdings of the Court below and subsequent inventors will file for and be issued patents presumed valid. Inevitably, time consuming and expensive litigation will follow. Or, in the alternative, licenses will be taken under such patents of questionable validity in order to avoid time consuming and expensive litigation.

(2) *With Respect to Practice Before the U.S. Patent and Trademark Office*: If the Solicitor General's petition for a writ of certiorari is denied, the decisions below must be interpreted against this Court's holding *Gottschalk* v. *Benson* by scores of Examiners in the United States Patent and Trademark Office. As a result of the inherent inconsistency between these two opinions and *Gottschalk* v. *Benson*, the patentability of computer programs claimed as "machines" or "processes" will be subject to a wide range of interpretation by the Examiners. Administrative guidelines may limit the extent to which Examiners shall apply these varied interpretations to pending patent applications, but such guidelines will not ensure consistent and uniform interpretations. Inconsistent application of controlling legal principles inevitably will result in protracted patent application prosecution time within the Patent and Trademark Office and costly and time consuming administrative

and judicial appeals. It is, in the words of Judge Rich in his dissenting opinion in *Chatfield*, "a socio-economic issue with an impact of considerable magnitude, particularly on the practical operation of the Patent and Trademark Office." 191 U.S.P.Q. at 738. This inefficient and wasteful administrative and judicial effort will work to the economic detriment of the public, the Patent and Trademark Office, the courts, and the patent applicants themselves.

(3) *With Respect to Patent Litigation:* Should the Solicitor General's petition for a writ of certiorari be denied, all patents based upon computer programs will issue under a cloud of invalidity. Costly and time-consuming litigation to resolve conflicts over such patents is inevitable. Moreover, licensing such patents will be nothing more than an expensive guessing game with potentially grave economic impact. Parties may be forced into costly litigation to determine patent validity or forced into costly settlements to avoid the significant risks and expenses of litigation. This Court should not permit its holding in *Gottschalk* v. *Benson* to contribute to litigation as a result of different interpretations thereof by the judiciary.[6]

(4) *With Respect to Government Contracting:* If the Solicitor General's petition for writ of certiorari is denied, there will be uncertainty with respect to the obligations of Government contractors with resulting economic impact. For example, if a "Subject Invention" under a Government contract is a computer program for a programmed general pur-

[6] For examples of varying interpretations of this Court's holding in *Gottschalk* v. *Benson*, see the cases cited in footnote 4, *supra*.

pose computer, the expenses incurred by the contractor and Government will vary greatly, depending upon whether or not the invention is patentable. Clarification of the decision below will enable Government contractors to ascertain the proper procedures to follow and will eliminate unnecessary and wasteful expenditures.

(5) *With Respect to the Public Generally:* Should the Solicitor General's petition for a writ of certiorari be denied, the question herein inevitably will be presented to this Court at a future time. If the question reaches this Court through appeal of Federal Circuit Court decisions in patent infringement actions, a period of several years will have elapsed. Substantial numbers of potentially invalid patents will have been issued in the interim having a correspondingly significant and anti-competitive effect upon all areas of commerce and industry touched by computers and computer use.

D. The Question Presented By The Decisions Below Should Be Reviewed Now

Since the practical result of the decisions below will be to bring about an era of uncertainty and confusion in the data processing industry and specifically in the development of computer programs, CBEMA submits that the question presented herein should be determined now with finality. Until this issue is resolved by this Court, those who create and use programs may be compelled to operate in an atmosphere of confusion, distrust and secrecy, and will find it necessary frequently to engage in protracted and costly litigation. It can be anticipated that many of the computer program related patents issued by the United States Patent and Trademark

Office as a result of the lower Court's holding will be licensed, and that users will have the option of either accepting the license terms or contesting the validity of the patents in infringement litigation. In such litigation, the user's most basic defense will be that computer programs claimed as either a "machine" or "process" are not patentable subject matter under the Constitution and the Patent Code, 35 U.S.C. § 101. The decisions of the Court of Customs and Patent Appeals in these cases will not be binding precedent on the various Federal District Courts and Circuit Courts of Appeals, which must decide these infringement suits, and in view of the substantial difference of opinion on this question, it is reasonable to expect that conflicting decisions will occur.

To defer review of the issue of patentability of computer programs claimed either as a "machine" or "process" until patent infringement litigation eventuates and matures to the point of reaching this Court years hence will simply multiply the opportunities for endless litigation.

IV.

CONCLUSION

For the foregoing reasons, we respectfully submit that the Solicitor General's petition for a writ of certiorari in the *Chatfield* and *Noll* cases should be granted.

Respectfully submitted,

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